BACKGROUND AND ISSUES ON CERTAIN TAX AND TRADE ALCOHOL FUEL INITIATIVES

Scheduled for a Hearing

Before the

HOUSE COMMITTEE ON WAYS AND MEANS

on February 1, 1990

Prepared by the Staff

of the

JOINT COMMITTEE ON TAXATION

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INTRODUCTION

The Committee on Ways and Means has scheduled a public hearing on February 1, 1990, on certain tax and trade alcohol fuel initiatives, including the temporary Highway Trust Fund excise tax exemptions, income tax credit, and tariffs on certain alcohol-blend fuels used in highway vehicles. In addition, the hearing will address the November 1989 Treasury announcement that ethyl tertiary butyl ether (ETBE) may qualify as an alcohol mixture for purposes of the section 40 income tax credit.

In announcing this hearing, Chairman Rostenkowski stated, "This hearing fulfills a commitment I made late last session during consideration of H.R. 3275, the Steel Trade Liberalization Program Implementation Act. Under the terms of the Conference Agreement on budget reconciliation [H.R. 3299], the Senate agreed to include the House-passed CBI ethanol provision as part of H.R. 3275. During Senate consideration of that bill, certain tax provisions related to ethanol were raised. Because the Congress had not had the opportunity to review those provisions which are due to expire in 1992 and 1993, the House resisted inclusion of such tax-related ethanol provisions in H.R. 3275. However, I pledged at that time to schedule a hearing on these issues as early as possible in 1990. During the February 1 hearing, the Committee will take a comprehensive look at the interrelated ethanol issues, including the ethanol tax exemption, the income tax credit, the additional tariff currently applicable to imported ethanol, and the CBI ethanol compromise which was enacted in H.R. 3275. In addition, I am concerned that the Treasury Department, without prior consultation with the Congress, may have gone beyond the original intent of the section 40 credit in its recently announced position on ETBE. The Committee intends to explore the appropriateness of Treasury's recent action on ETBE at this hearing."

This document,[1] prepared by the staffs of the Joint Committee on Taxation and the Trade Subcommittee of the Committee on Ways and Means, provides background information on, and discussion of issues, relating to tax and trade alcohol fuel initiatives. The first part is a description of present-law tax and tariff rules relating to alcohol fuels, and the second part is a discussion of issues.

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[1] This document may be cited as follows: Joint Committee on Taxation, <u>Background and Issues on Certain Tax and Trade Alcohol Fuels Initiatives</u> (JCX-1-90), January 30, 1990.

I. PRESENT LAW

A. Excise Taxes

Excise taxes on gasoline, diesel fuel, special motor fuels, trucks and truck trailers, and truck tires make up the sources of tax revenue for the Highway Trust Fund (sec. 9503). The Highway Trust Fund taxes, however, are scheduled to expire after September 30, 1993. Through that expiration date, an excise tax of 9 cents per gallon generally is imposed upon gasoline (sec. 4081), and an excise tax of 15 cents per gallon generally is imposed upon diesel fuel used in diesel-powered highway vehicles (secs. 4041(a)(1) and 4091). Also, an excise tax of 9 cents per gallon generally is imposed on certain special motor fuels (e.g., benzol, benzene, naphtha, and liquefied petroleum gas) used as fuel in a motor vehicle or motorboat (sec. 4041(a)(2)).[2]

Special reduced excise tax rates are applicable to certain fuel mixtures. Gasohol (i.e., any mixture of gasoline containing at least 10 percent alcohol) is subject to a reduced excise tax of 3 1/3 cents per gallon, rather than the general rate imposed upon gasoline of 9 cents per gallon (sec. 4081(c)). Diesohol (i.e., any mixture of diesel fuel containing at least 10 percent alcohol) is subject to a reduced excise tax of 9 cents per gallon, rather than the general rate imposed upon diesel fuel of 15 cents per gallon (secs. 4091(c) and 4041(k)(1)(A)). Methanol and ethanol fuels (i.e., any liquid at least 85 percent of which consists of methanol, ethanol, or other alcohol produced from a substance other than petroleum or natural gas) is subject to a reduced excise tax of 3 cents per gallon (sec. 4041(b)(2)).

An excise tax rate of 3 cents per gallon also applies to special motor fuels otherwise subject to tax under section 4041(a)(2)(e.g., benzol, benzene, naphtha, and liquefied petroleum gas) if the fuel contains at least 10 percent alcohol (sec. 4041(k)(1)(B)).

The excise tax rate is 4 1/2 cents per gallon in the case of any liquid at least 85 percent of which consists of methanol, ethanol, or other alcohol <u>produced from natural gas</u> (sec. 4041(m)).

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[2] The Code provides for various nonhighway use exemptions (generally via refunds or credits) from the excise taxes imposed on gasoline, diesel fuel, and special motor fuels. <u>See</u>, <u>e.g.</u>, secs. 4093, 6416, 6420, 6421, and 6427.

B. Alcohol Fuels Credit

An income tax credit is provided for by section 40 of the Code for alcohol used in certain mixtures of alcohol and gasoline (e.g., gasohol), diesel fuel, or any other liquid fuel which is suitable for use in an internal combustion engine if the mixture is sold by the producer in a trade or business for use as a fuel or is so used by the producer. The credit also is permitted for alcohol (e.g., qualified methanol fuel) which is not in a mixture with gasoline, diesel, or other liquid fuel which is suitable for use in an internal combustion engine, provided that the alcohol is used by the taxpayer as a fuel in a trade or business or is sold by the taxpayer at retail to a person and placed in the fuel tank of the purchaser's vehicle (sec. 40(b)(2)). The credit is equal to 60 cents for each gallon of alcohol used as fuel. The credit is scheduled to expire after December 31, 1992.

The amount of any taxpayer's credit under section 40 is reduced to take into account any benefit received with respect to the alcohol under the special reduced excise tax rates for alcohol fuels mixtures or alcohol fuels (described in A., above). For purposes of the credit, the term alcohol includes methanol and ethanol, but does not include alcohol produced from petroleum, natural gas, or coal (including peat), or alcohol with a proof less than 150.

On November 20, 1989, the Treasury Department issued proposed regulations under Code section 40 providing that a product is considered to be a mixture of alcohol and gasoline or of alcohol and a special fuel if the product is derived from alcohol and either gasoline or a special fuel, even if the alcohol is chemically transformed in producing the product so that the alcohol is no longer present as a separate chemical in the final product. Thus, the proposed regulations provide that a blend of gasoline and ethyl tertiary butyl ether (ETBE)[3], in a chemical reaction in which there is no significant loss in the energy content of the ethanol, constitutes a "qualified mixture" for purposes of the section 40 credit, even though the ethanol is chemically transformed in the production of ETBE and is not present in the final product.

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[3] ETBE is a chemical compound produced in a reaction between ethanol (an alcohol that is not produced from petroleum, natural gas, or coal) and isobutylene (a by-product of petroleum refining). ETBE is then blended with gasoline as an octane enhancer (54 Fed. Reg. at 48639).

C. Ethanol Imports

1. Tariff Provisions.--An additional 60-cent per gallon tariff is imposed on imports of alcohol used as fuel, in order to offset the 60-cent per gallon alcohol fuels tax credit (discussed above). The additional tariff is scheduled to expire after December 31, 1992, along with the tax credit.

2. Caribbean Basin Imports.--Under the Caribbean Basin Economic Recovery Act of 1983 (CBERA; also known as the Caribbean Basin Initiative, or CBI), articles imported from CBI countries, including ethanol, are entitled to duty-free treatment, if they are produced in the region and at least 35 percent of their value was added in the CBI countries. The Tax Reform Act of 1986 amended the 1983 CBI legislation to require that increasing amounts of CBI feedstock be used in order for Caribbean producers to be eligible for duty-free treatment of their ethanol exports to the United States. Several companies were "grandfathered"; and the grandfather clause was extended, with a cap on imports, until December 31, 1989, by the Omnibus Trade and Competitiveness Act of 1988.

A compromise provision, establishing several different criteria for the duty-free entry to ethanol from CBI countries and U.S. insular possessions, was enacted as part of H.R. 3275, the Steel Trade Liberalization Program Implementation Act. Under this provision, there would be no feedstock requirement for imports up to a level of 60 million gallons or 7 percent of the domestic ethanol market, whichever is greater. A feedstock requirement of 30 percent (by volume) would apply to the next 35 million gallons of imports and a 50 percent (by volume) feedstock requirement would apply to all additional imports. Although the House version of this bill would have tied the effective date of this provision to the effective date of the tariff provision described above (i.e., December 31, 1992), a Senate amendment made this provision effective only for a two-year period (i.e., December 31, 1991). H.R. 3275 was signed into law by President Bush on December 12, 1989 (Public Law 101-221).

II. ISSUES

A. Ethanol

The excise tax exemption and the alcohol fuels credit were enacted to encourage conservation of petroleum by providing an incentive for production of gasohol mixtures which would reduce the amount of petroleum used in producing gasoline and stimulate the production of usable fuels from renewable sources. In an environment characterized by limits on the exploitation of natural resources, the substitution of ethanol produced from renewable plant matter for non-renewable petroleum products is socially desirable. Tax subsidies for the renewable fuels industries are intended to increase reliance on renewable resources.

These national security concerns were addressed by increasing U.S. self-sufficiency in energy production. To the extent renewable sources of fuel grown domestically substitute for imported petroleum products, the goal of U.S. energy independence is furthered. National security also was a major policy concern when the alcohol fuel subsidies were enacted. The experience during the 1970s of the OPEC oil boycott of the U.S. and the extremely large price increases for petroleum threatened the ability of the U.S. economy to grow at an acceptable pace.

Use of ethanol in a gasohol mixture has been increasing steadily, but such mixtures still account for a modest proportion of gasoline consumption. Gasohol prices at the pump indicate that gasohol may not be competitive with gasoline without the subsidy in the form of the excise tax exemption or the alcohol tax credit.

Support for the ethanol subsidies also is based on the claim that ethanol production leads to increased income for farmers who produce corn (which is the primary commodity used in producing ethanol) and has favorable effects on the farm price support program. Some doubt about the benefits of the ethanol program for the overall farm programs has been expressed by several observers. A summary of the analysis expressing such doubts is presented in the following two paragraphs which appeared in a Department of Agricultural report.[4]

"Farm income would increase modestly if the ethanol industry expanded. The market price for corn would increase but the gain to total income would be small in the near term; government payments to corn producers would fall as the gap

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[4] U.S. Department of Agriculture, Ethanol: Economic and Policy Tradeoffs, January 1988.

between the market and target prices of corn narrow. By 1995, when market prices push above target prices, gains to corn producers would be greater. Income to oilseed producers (such as soybean, cotton seed, and sunflower seed producers) would fall as a result of the expanded supply of corn oil and protein meal feeds that are by-products of ethanol production. Other agricultural producers would experience minor effects. Producers of grains other than corn would benefit as prices of all grains followed corn prices. Livestock producers would gain from lower protein meal prices but lose as a result of higher grain prices, the net effect dependent on the specific price effects and the importance of grain versus protein feeds in the ration. The total income in farm income from a 1.9-billion-gallon addition to the current 800-million-gallon ethanol industry would be less than $1 billion in 1995 and lower in earlier years.

"To achieve significant increases in ethanol production and the estimated savings in agricultural program outlays, it would be necessary to extend the Federal excise tax exemption on ethanol blend fuels through the year 2000. The agricultural program savings would exceed the reduction in Highway Trust Fund revenues through 1995. Beyond 1995, however, Highway Trust Fund revenue losses exceed farm program savings under the assumption of recovery in the agricultural sector and continuance of current agricultural programs without significant change. By 1999, the added budget costs would exceed budget savings realized prior to 1995."

Some experts have questioned whether the alcohol fuels subsidies provided by the Code have a significant impact on the environment. Gasohol mixtures using ethanol, ETBE, methanol, and MTBE reduce automobile exhaust emissions of oxides of nitrogen, hydrocarbons, and particulates because 10 percent less gasoline is in the fuel mixture, but those benefits are offset by increases of more volatile emissions, e.g., ozone. On balance, the ambient air tends to remain about as polluted as it was without the use of these additives but with a different mixture of pollutants. [5]

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5 Library of Congress, Congressional Research Service, "Emissions Impact of Oxygenated (Alcohol/Gasoline) Fuels," (CRS Report 87-436 S), May 20, 1987.

B. ETBE

The Internal Revenue Service recently issued proposed regulations and held public hearings regarding the determination that ETBE does qualifies for the alcohol credit under section 40 of the Code. In developing these rules, the IRS looked to the intent of the Crude Oil Windfall Profit Tax Act of 1980 that established the alcohol fuels credit, since ETBE was not in use when that credit was enacted. The purpose of the alcohol fuels credit appears to be the encouragement of non-petroleum based energy products as motor fuels. To the extent that ETBE (or other product) can be derived from ethanol without a significant loss of energy in the production process, the IRS believes the intent of the law will be furthered by extending the alcohol credit to such substances.

ETBE (ethyl tertiary butyl ether) is a chemical compound produced in a reaction between ethanol and isobutylene (a by-product of petroleum refining). Ethanol is a renewable energy source, while isobutylene is not. During the production process, there is no significant loss in the energy content of the ethanol utilized. However, in the production process of ETBE, ethanol ceases to be a separately identifiable substance. ETBE is generally used as an octane enhancer and is blended with gasoline.

ETBE mixed with gasoline is likely to be viewed as a substitute for ethanol mixed with gasoline (gasohol). If this substitution occurs, efficiency gains may be realized because ETBE does not absorb water, making it easier to transport than ethanol (similarly, a mixture of ETBE and gasoline would be easier to transport than gasohol). This ease of use could lead to additional consumer acceptance of gasoline and alcohol products mixtures, thereby broadening the market for renewable energy sources such as ethanol.

Currently, ETBE competes with other octane enhancers, in particular MTBE (methyl tertiary butyl ether), that are ineligible for the alcohol fuels credit since they are produced from non-renewable resources (in the case of MTBE, from methanol produced primarily from natural gas). If ETBE is deemed as a qualified mixture for purposes of the alcohol fuels credit, then it will be placed at a competitive advantage relative to MTBE. At this time, MTBE is a very widely utilized octane enhancer.

Therefore, the issue can be posed as whether it is desirable to subsidize a renewable fuel source (ETBE) that will compete directly with a widely accepted, though non-renewable, fuel source (MTBE).

A subsidy to ETBE may lead to an inefficient resource

use because it induces consumers to substitute an otherwise higher cost resource for a lower cost resource (MTBE). The subsidy, however, may tend to improve resource allocation if the lower cost resource imposes costs on society, which are not reflected in the resource's market price. This underpricing could occur if production of MTBE itself leads to pollution above that caused by ETBE production. In addition, if the social rate of discount for a nonrenewable resource, i.e., methanol produced from natural gas, is sufficiently above the private rate of discount, use of the nonrenewable substance instead of a renewable alternative may be socially wasteful.

C. CBI Ethanol Imports

1. Tariff Provisions.--The intent of the additional 60-cent per gallon tariff on imported ethanol was to offset the tax credit of equal value and assure that the tax credit acted to stimulate domestic production rather than increase imports. If the alcohol fuels tax credit is extended beyond December 31, 1992, should an equal off-setting tariff continue to be imposed? Similarly, if the tax credit were eliminated, should the additional tariff also be eliminated?

2. Caribbean Basin Imports.--The intent of the Caribbean Basin Economic Recovery Act of 1983 (CBERA) was to stimulate more rapid economic development and greater employment opportunities in eligible CBI countries through increased trade and investment -- particularly in non-traditional product areas -- stimulated by certain preferences extended by the law. Ethanol was treated no differently from other products produced in CBI countries and exported duty-free to the United States under criteria established in the law.

Following enactment of CBERA, a number of companies established facilities in CBI countries to produce ethanol and export it duty-free to the United States. Rather than use all local feedstock (e.g., sugarcane) to make ethanol, the producers to varying degrees utilized low-cost, subsidized European wine alcohol as their feedstock. This feedstock often was blended with locally-produced feedstock, but sometimes it was the sole feedstock in their production of ethanol. The U.S. Customs Service ruled that these ethanol products met the eligibility requirements of the original CBI legislation and were therefore entitled to duty-free treatment.

U.S. ethanol producers objected to the use of European wine alcohol, arguing that it amounted to no more than a pass-through operation, which did not significantly benefit CBI countries and failed to conform to the intent of the CBI legislation. They further argued that the use of subsidized European wine by CBI producers put the domestic producers at a competitive disadvantage. CBI producers responded that CBI countries did not yet produce sufficient quantities of sugarcane for use as an ethanol feedstock; therefore, in order to remain in operation, the were obliged to use other, non-CBI feedstocks. They expressed the intention gradually to increase the use of local feedstock in their ethanol production.

The Tax Reform Act of 1986 (section 423) amended the 1983 CBERA legislation and imposed new requirements on imports of CBI ethanol, aimed at discouraging pass-through operations and encouraging meaningful economic development in the Caribbean. Ethanol imports would continue to qualify for

duty-free treatment if at least 75 percent of the value of the final product were accounted for by CBI feedstock. (This requirement was phased in over three years.) Plants already built or for which equipment was ordered were exempt from this requirement until December 31, 1989. Studies by the General Accounting Office (GAO) and the U.S. International Trade Commission (ITC) concluded that CBI producers could not meet these requirements.

The compromise agreed to by CBI and domestic ethanol producers as part of H.R. 3275 was intended to cap overall imports of CBI ethanol and to encourage the use of increasing amounts of local feedstock by CBI producers, while maintaining local feedstock requirements at levels low enough to allow them to remain in operation.

This compromise provision expires on December 31, 1991. Upon its expiration, ethanol once again would be subject to the same criteria as other products entering the United States duty-free from the Caribbean. A key issue is whether this provision should be extended or another enacted to provide differential treatment of ethanol in the CBI program. Further, should the effective date of this provision be the same as the effective date of the other ethanol tax and trade provisions discussed above?